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01/20/2006

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EXAMINER

KEEHN, RICHARD G

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/565,355	<b>Applicant(s)</b> NANDHRA, IAN R.	
	<b>Examiner</b> Richard G. Keehn	<b>Art Unit</b> 4121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/7/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

Claim 1 was cancelled by the applicant.

Claims 2-11 have been examined and are pending.

### ***Specification***

#### **Content of Specification**

- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

1. The disclosure is objected to because of the following informalities:
  - The detailed description of the invention contains a plurality of errors in cross-referencing element numbers to the figures.
    - An example can be found on page 6, paragraph 0032 where, according to Figure 2, stated element “246” should read “216.” (also note drawing objection below for use of same element number for differing elements)

- Another example is on page 8, paragraph 0037, wherein applicant refers to element 410, which does not appear in Figure 4 (or any other figure).
- Another example is on Page 15, paragraph 0061 wherein applicant refers to 812 as Email Source Data, which conflicts with Figure 8.
- Another example is on Page 15, paragraph 0059 wherein applicant refers to 844 as an Email Source Data but Figure 8 shows 844 to be a Synchronizer.
- Another example is on Page 15, paragraph 0059 wherein applicant refers to 846 as a Synchronizer but Figure 8 shows 846 to be an email path.
- Another example is on Page 15, paragraph 0062 wherein applicant refers to 808 as a Synchronizer, where Figure 8 shows 808 to be a “Corpa.”
- Another example is on Page 18, paragraph 0065. Several references to 500 level items do not exist on Figure 5. Figure 8 does not appear to cure the problem either. Examiner cannot find any figure that may incorporate all of the referenced 500 level item numbers by substituting the first number (e.g. 542 to 842) contained in paragraph 0065. This paragraph was perhaps written for an earlier version of this application, but has no relevance to this

version of application submitted. Consequently, this also renders paragraph 0066 void.

- Page 13, paragraph 0051 omits the term “Sales” associated with 700.
- Page 13, paragraph 0053 cites Corpus 714, which is “Email Source Data.” Examiner assumes applicant meant to cite item 724.
- Page 8, paragraph 0037 references item 410, which does not appear in Figure 4.
- Page 10, paragraph 0041 uses the phrase “the words was last references” which examiner assumes should have read “the word was last referenced.”
- Page 15, paragraph 0061 references items 508 and 528, which are from Figure 5, and do not represent what applicant is describing in this paragraph.
- Page 15, paragraph 0062 states 808 to be a “Corpora”. Previous and subsequent paragraphs in the disclosure also use this term. The Figure 8 uses the term “Corpa”. Is applicant referring to “Corpus”, “Corpora” or something else?
- Page 16, paragraph 0062 describes a formula that the Synchronizer receives. The second line of the formula appears to try to qualify the terms “Rns”, “Rnn”, and “RNds” using the symbol “<=”. What does this mean? Furthermore, “Rns” does not appear in the previous line, but

“RNs” does. Are these the same? What do all of the symbols refer to?

What relevance to the remainder of the disclosure does the formula have?

- Page 16, paragraph 0062 recites a time period ‘t’ but does not incorporate it into the formula. Reading the disclosure, the time period symbol appears to have no relevance. Similarly, Page 16, paragraph 0063 uses the symbol “Treq” which also appears to have no relevance anywhere else in the disclosure.
- Page 16, paragraph 0063 reads “from a total of 10 Corpus.” While reading the specification, “Corpus” appears to be a singular term, therefore the use of the term “Corpus” in this context is incorrect.
- Page 16, paragraph 0063 uses several formulae where N, referring to corpora, and R, referring to data entries, are being used. The units do not match with the target units. How does corpora minus data entries equal corpora?
- Page 19, paragraph 0067 recites “is merged with Corpus 942 in Space Cell B (924) and Email Source Data (920)”. Looking at Figure 9, these entities are not shown in any logical relationship to Space Cell B, but perhaps Space Cell C? Please revise and clarify.

The aforementioned errors are a sampling of many errors found in the disclosure making the description of the invention difficult to follow for one of ordinary skill in the art, and creating excess burden on examination time. The errors cited are not an

exhaustive list. Due to numerous errors in the specification and drawings, examiner requests that applicant compare the specification to the drawings, proofread the application, and revise as necessary. Appropriate corrections are required.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “216” has been used to designate both source and destination. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because item 230 is pointing to “al.com (216,13” instead of the intended IP address target. Also, Figure nine displays items 930 and J2, which do not appear to be associated with any object(s) on the drawing and are not referenced in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the

application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The informal drawings are not of sufficient quality to permit examination. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Figures 7 and 9 contain item numbers buried in the cross-hatching / shading and are illegible.



***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to Claim 2, the claim is too broad because it is not supported by the original description or by an enabling disclosure. Applicant's use of the term "continuum" recited in the phrase "...on a continuum of probabilities" is not supported in the specification since the application does not disclose all possibilities not contemplated by the applicant.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to Claim 2, other than mentioning that a probability is determined, nothing in the disclosure specifically indicates how this is achieved. Furthermore, because of the numerous errors in the disclosure, one of ordinary skill in the art at the time the invention was made would find it difficult to follow the applicant's described methods in the disclosure. The informalities described in section 1 of this office action (above) illustrate said errors. Paragraphs 59-66 are particularly difficult to follow due to the errors and arbitrary symbols used.

As to Claim 9, the disclosure does not support the use of statistics and how they may be calculated or applied.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Non-Patent Literature from SourceForge.net discussing the POPFile Spam filter system published in May, 2003 (POPFile), and further in view of Non-Patent Literature from SpamBayes discussing the SpamBayes Spam filter published February 1, 2003 (SpamBayes).

As to Claim 2, POPFile teaches a method of characterizing an e-mail to a recipient received at a destination, comprising:

processing information associated with the received e-mail in view of information associated with the recipient (POPFile - Page 3, third paragraph under heading "What does POPFile do?" recites the POP3 proxy sorting email based upon 'n' number of categories associated with the recipient of said email. The recipient actually defines the categories).

POPFile does not explicitly teach, but SpamBayes teaches determining from a result of the processing step a probability, on a continuum of probabilities, that the recipient is interested in the received e-mail (SpamBayes - Page 2, second paragraph recites that the filter compares the spam and ham and calculates probabilities to determine what it calls "spaminess" which is a measure of whether or not the recipient would be interested in the email filtered. Page 1, under the heading "That's great..." the first paragraph recites that the filtering and classification is performed on incoming email. Page 2, first paragraph recites the adaptation to spam changes, which means filtering is on a continuum).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the process of calculating probabilities, on a continuum of probabilities taught by SpamBayes, with the processing information associated with the received e-mail in view of information associated with the recipient taught by POPFile.

One of ordinary skill in the art at the time the invention was made would have been motivated to provide an adaptable solution to ever-changing spam attacks (SpamBayes, Page 2, first paragraph).

As to Claim 3, the combination of POPFile and SpamBayes teaches claim 2, wherein:

the information associated with the received e-mail includes word content of the received e-mail (SpamBayes - Page 1, under the heading "That's great..." the first paragraph recites the use of word content from the received email).

As to Claim 4, the combination of POPFile and SpamBayes teaches claim 3, wherein:

the information associated with the recipient includes word content associated with the recipient (POPFile - Page 3, third paragraph under heading "What does POPFile do?" recites the POP3 proxy sorting email based upon 'n' number of categories associated with the recipient of said email. The recipient actually defines the categories, hence recipient association is present).

As to Claim 5, the combination of POPFile and SpamBayes teaches claim 4, wherein:

the word content associated with the recipient includes word content associated with one or more interest groups with which the recipient is associated (POPFile - Page 3, third paragraph under heading "What does POPFile do?" recites the POP3 proxy sorting email based upon 'n' number of categories associated with the recipient of said email. The recipient actually defines the categories. Said categories are interest groups specific to the recipient since the recipient defined the groups based on his or her area of interest).

8. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of POPFile and SpamBayes as applied to claim 2 above, and further in view of Non-Patent Literature "Tracking e-mail" dated February 19, 2002 (eMailTrackerPro).

As to Claim 6, the combination of POPFile and SpamBayes teaches claim 2.

The combination of POPFile and SpamBayes does not explicitly teach, but eMailTrackerPro teaches the information associated with the received e-mail includes path information associated with the received e-mail (eMailTrackerPro – Pages 3 and 4, Section 3 recites the tracking of the path of an email).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the examination of path information taught by eMailTrackerPro, with processing information associated with the received e-mail in view of information associated with the recipient and determining from a result of the processing step a probability, on a continuum of probabilities, that the recipient is interested in the received e-mail taught by the combination of POPFile and SpamBayes.

One of ordinary skill in the art at the time the invention was made would have been motivated, as part of an effective email spam filter, to track the email path to identify the true sender (eMailTrackerPro – Page 1).

As to Claim 7, the combination of POPFile, SpamBayes and eMailTrackerPro teaches claim 6, wherein:

the information associated with the recipient includes path information (eMailTrackerPro – Pages 3 and 4, Section 3 recites the tracking of the path of an email) of previously-received e-mails associated with the recipient (POPFile - Page 3, third paragraph under heading “What does POPFile do?” recites the POP3 proxy sorting email based upon ‘n’ number of categories associated with the recipient of said email. The proxy learns based on previous emails analyzed).

The motivation and obviousness arguments to incorporate path analysis are the same as in Claim 6.

As to Claim 8, the combination of POPFile, SpamBayes and eMailTrackerPro teaches claim 7, wherein:

the previously-received e-mails associated with the recipient include e-mails previously received by recipients in one or more interest groups with which the recipient is associated (POPFile - Page 3, third paragraph under heading "What does POPFile do?" recites the POP3 proxy sorting email based upon 'n' number of categories associated with the recipient of said email. The recipient actually defines the categories. Said categories are interest groups specific to the recipient since the recipient defined the groups based on his or her area of interest).

The motivation and obviousness arguments are the same as in Claim 5.

9. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of POPFile, SpamBayes and eMailTrackerPro as applied to claim 7 above, and further in view of US 6,330,590 B1 (Cotten).

As to Claim 9, the combination of POPFile, SpamBayes and eMailTrackerPro teaches claim 7, and statistics regarding previously-received e-mails (SpamBayes, Page 2 recites the calculation of probabilities, which require statistics of data to perform).

The combination of POPFile, SpamBayes and eMailTrackerPro does not teach, but Cotten teaches the path information associated with previously-received e-mails, associated with the recipient, includes an indication of unique paths associated with the previously-received e-mails and nominally received via the unique paths (Cotten – Column 3, lines 21-58 recite path information from previously received emails that are determined to be spam are stored and used to compare incoming email messages for the purpose of filtering out spam. Unique paths are stored as signature activation codes used for comparison).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of storing previous unique path information taught by Cotten, with the method of the information associated with the recipient includes path information taught by the combination of POPFile, SpamBayes and eMailTrackerPro.

One of ordinary skill in the art at the time the invention was made would have been motivated to reduce the bandwidth congestion caused by spam such as bulk mail (Cotten – Column 3, lines 16-20).

As to Claim 10, the combination of POPFile, SpamBayes, eMailTrackerPro and Cotten teaches claim 9, wherein:

the unique paths associated with previously-received e-mails include IP addresses (eMailTrackerPro – Pages 4 and 5, Section 4 recites the use of IP addresses for email path tracking purposes).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the analysis of IP addresses taught by eMailTrackerPro, with the collection of unique paths taught by the combination of POPFile, SpamBayes, eMailTrackerPro and Cotten.

One of ordinary skill in the art at the time the invention was made would have been motivated to look beyond the name, which may be intentionally changed to mislead the recipient (eMailTrackerPro – Page 4).

As to Claim 11, the combination of POPFile, SpamBayes, eMailTrackerPro and Cotten teaches claim 10, wherein:

at least some of the IP addresses are resolved using at least one IP address lookup service (eMailTrackerPro – Pages 5 and 6, Section 5 recite an IP address lookup service).

The motivation and obviousness arguments are the same as in Claim 10.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These include

Non-Patent Literature:

- The Spam Problem: Moving Beyond RBLs, 01/03/2003, 15 pages;

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- SourceForge.net, SpamProbe - fast bayesian spam filter, 10/15/2002, 22 Pages;
- Antionline.com, E5C4P3, 03/05/2002, 2 pages;
- Brian Livingston, Paul Graham provides stunning answer to spam e-mails - Probability theory shows impressive results, 08/20/2002, 3 pages;
- Heinz Tschabitscher, What You Need to Know About Bayesian Spam Filtering, 04/02/2003, 6 pages;
- eMailTrackerPro - Track Internet e-mails back to the sender, 04/05/2002, 2 pages;
- eMailTrackerPro Online Instruction Manual for Version 1.1a, 02/04/2002, 4 pages;
- Order Openwall GNU/\*/Linux 2.0 on a CD with delivery worldwide, 05/12/2003, 11 pages; and

Patent Literature:

- US 2004/0177120 A1 – Method for Filtering E-Mail Messages;
- US 2004/0068542 A1 – Method and Apparatus for Authenticating Electronic Mail;
- US 2005/0015455 A1 – SPAM Processing System and Methods Including Shared Information Among Plural SPAM Filters; and
- US 6,996,606 B2 – Junk Mail Rejection System.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard G. Keehn whose telephone number is 571-270-5007. The examiner can normally be reached on Monday through Thursday, 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached on 571-272-3787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RGK  
11/19/2007

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11/19/2007